

REMARKS

In the Final Office Action, the Examiner rejected to claims 1-6, 11-13 and 15 under 35 U.S.C. § 102(b) as being anticipated by MILLER et al. (U.S. Patent No. 5,930,231), rejected claims 7-9 and 14 under 35 U.S.C. § 103(b) as being unpatentable over MILLER et al. in view of BAUM et al. (U.S. Patent No. 6,778,525), and rejected claim 10 under 35 U.S.C. § 103(b) as being unpatentable over MILLER et al. in view of KATSEFF et al. (U.S. Patent No. 6,768,722).

Claims 1-15 were pending in the present application prior to the above amendments. Applicants propose amending claims 1 and 12 to improve form. No new matter has been introduced. Accordingly, claims 1-15 remain pending in the present application. Reconsideration and allowance of all claims in view of the following remarks are respectfully requested.

Claims 1-6, 11-13, and 15 have been rejected under 35 U.S.C. § 102(b) as being anticipated by MILLER et al. Applicants respectfully traverse.

Independent claim 1, as amended, recites a method of transferring the contents of an information channel from a source to a destination. The method includes providing, at the source, an analog spectrum having a plurality of channels *via a first analog path*. The analog spectrum is digitized, resulting in a digitized spectrum. A selected channel is isolated from the digitized spectrum. Only the selected channel is translated to baseband, resulting in a digitized channel. The digitized channel and associated attribute information are framed, resulting in a framed channel. The framed channel is transmitted to the destination using packet techniques over a *second packet network distinct from the*

first analog path. A frequency and bandwidth accurate replica of the received framed channel is *reconstructed*, resulting in a reconstructed replica of the selected channel at the destination.

A proper rejection under 35 U.S.C. § 102 requires that a reference teach every aspect of the claimed invention either explicitly or impliedly. Any feature not directly taught must be inherently present. See M.P.E.P. § 2131. MILLER et al. does not disclose or suggest the combination of features recited in Applicants' claim 1.

For example, MILLER et al. does not disclose or suggest framing an isolated digital channel to generate a framed channel and transmitting the framed channel to the destination *using packet techniques over a second packet network distinct from the first analog path*, as required by claim 1. The Examiner relied upon the abstract, Figs. 8 and 9, col. 7, line 7-64, and col. 14, lines 13-22 of MILLER et al. as allegedly disclosing transmitting the framed channel to the destination using packet techniques over a packet network (Office Action, pg. 2). Applicants respectfully submit that these sections of MILLER et al. do not disclose or suggest transmitting the framed channel to the destination *using packet techniques over a second packet network distinct from the first analog path*, as required by claim 1.

In the abstract, MILLER et al. discloses:

A communication system for coupling telephony or other signals to a broadband network such as a CATV network. The system transmits a multiplex of telephony signals in the forward band of the broadband network, with individual signals directed to an addressed subscriber. Telephony signals returning from subscribers upstream to a headend unit (HIU) are modulated onto the reverse band of the broadband network in a frequency division multiple access (FDMA) arrangement. The upstream modulated telephony signals are received at a telephony network interface at the HIU coupled to the broadband network. A group of reverse band

modulated telephony signals are received at a group receiver or channelizer. The group receiver processes all upstream telephony signals within a selected spectral subband in the reverse band to apply a receiver matched filter with a weighted overlap and add circuit, and are then converted to baseband by an FFT circuit. The group receiver provides a serial data stream representing the baseband telephony signals. The baseband telephony signals are processed to derive demodulated telephony signals. The demodulated telephony signals are coupled to the telephony network.

This section of MILLER et al. discloses a system for *integrating* telephony signals into both forward and reverse portions of a cable television broadband signal. Particularly, relating to the reverse or upstream direction, the system of MILLER et al. provides a telephony terminal (CIU) for QPSK (quadrature phase shift keyed) modulating DS-0 telephony signals into the reverse data path. According to the abstract, FDMA (frequency division multiplex access) is utilized to enable multiple CIUs to transmit telephony signals onto the legacy CATV signal (the reverse band of the broadband network). Further, *following receipt of the signal at the headend*, a group receiver processes all upstream telephony signals having a selected spectral subband. Only then are the signals converted to baseband and demodulated to generate telephony signals for coupling to the telephony network.

This section of MILLER et al. does not disclose framing an isolated digital channel to generate a framed channel and transmitting the framed channel to the destination using packet techniques over a second packet network distinct from the first analog path, as required by claim 1. Further, MILLER et al. does not contemplate the formation of packets in the sense of packet-based networks. As is well known to those skilled in that of CATV systems, modulation techniques such as FDMA, CDMA, TDMA, QPSK, etc. are the techniques for carry digital data over *analog waveforms*. In this

respect, MILLER et al. does not disclose or suggest framing a digitized channel prior to transmission and transmitting the digitized channel over a packet network. Rather, the digital telephony information of MILLER et al. is forwarded to the headend system with the upstream signal path of the system, and not via a second packet network distinct from the first analog path, as required by claim 1.

At col. 7, lines 7-26, MILLER et al. discloses:

Briefly described, the present invention provides a system for coupling telephony signals communicated from a subscriber via a broadband communication network to a telephony network interface. The system includes a block receiver that receives a group of modulated telephony signals communicated in a predetermined spectral subband selected **within the upstream signal path in a broadband communication system**, and provides individual modulated digital telephony signal outputs that are coupled to the telephony network.

The system includes a tuner for tuning to and selecting the predetermined spectral subband. A digitizer provides a plurality of digital samples of the selected spectral subband. A block lowpass filter is provided that is operative to lowpass filter the digital signal samples of the entire group of signals in the selected spectral subband. A block fast Fourier transform (FFT) stage responsive to filtered signals from the block lowpass filter frequency translates each of the telephony signals into separate baseband modulated digital information output signals. (emphasis added)

This section of MILLER et al. discloses a system for coupling telephony signals in a broadband network to a telephony network. Various elements, including a block receiver, a tuner, a digitizer, a filter, and a FFT stage, are provided for receiving an upstream signal at a headend interface unit (HIU) and preparing it for transmission on a telephony network. Figures 8 and 9 similarly disclose specific embodiments of a reverse path demodulator and block receiver **incorporated within the HIU** of MILLER et al. to perform upstream signal processing at the head end, prior to transmission on the telephony network. These sections of MILLER et al. do not disclosing framing a

digitized channel and transmitting the framed channel to the destination using packet techniques over a second packet network distinct from the first analog path, as required by claim 1.

At col. 14, lines 13-22, MILLER et al. discloses:

What is meant by maintaining the connection is that the telephony network continues to place the called party's data packets into the assigned DS0 position in the standard telephony signal and the broadband communications system continues to convert them to the location and frequency in the forward multiplex that is directed to the particular subscriber.

For outgoing calls, the telephony network recognizes from the DS0 position in the **standard telephony signal** which data packet belongs to a particular originating subscriber of the CATV network. (emphasis added)

In this section, MILLER et al. discloses that a particular call recipient may be identified by the call data's position in the standard telephony signal received from the telephony network 10. This section of MILLER et al. does not disclose transmitting a framed channel from the source to the destination using packet techniques over a second packet network, as required by claim 1. Contrarily, the received data is clearly received in a standard telephony (e.g. PSTN) signal.

MILLER et al. also fails to disclose reconstructing a frequency and bandwidth accurate replica of the received framed channel, resulting in a reconstructed replica of the selected channel at the destination, as required by claim 1. The Examiner did not identify or rely upon any specific portion of MILLER et al. for allegedly disclosing reconstructing a frequency and bandwidth accurate replica of the received framed channel above the sections note above. Applicants respectfully submit that these prior-discussed sections of MILLER et al. do not disclose or suggest reconstructing a frequency and bandwidth

accurate replica of the received framed channel, as required by claim 1. Rather, the cited sections of MILLER et al. disclose identifying and extracting modulated telephony signals from a reverse band signal at the HIU. These signals are then converted to baseband and output to a conventional telephony network (see Abstract). Nowhere does MILLER et al. disclose reconstructing a frequency and bandwidth accurate replica of the received framed channel, as required by claim 1.

For at least the foregoing reasons, claim 1 is considered patentable over MILLER et al. Reconsideration and withdrawal of the pending rejection is respectfully requested.

Independent claim 12 recites features similar to features recited in claim 1. Therefore, claim 12 is not anticipated by MILLER et al. for at least reasons similar to those given above with respect to claim 1. Claims 13 and 15 depend from claim 12. Therefore, these claims are not anticipated by MILLER et al. for at least the reasons given above with respect to claim 12.

Claims 7-9 and 14 are rejected under 35 U.S.C. § 103(a) as being unpatentable over MILLER et al. in view of BAUM et al. Applicants respectfully traverse.

Claims 7-9 depend from claim 1. Applicant respectfully submits that the disclosure of BAUM et al. does not remedy the deficiencies noted above, with respect to MILLER et al. Therefore, Applicant submits that claims 7-9 are patentable over the cited combination of MILLER et al. and BAUM for at least the reasons given above with respect to claim 1.

Claim 14 depends from claim 12. Applicant respectfully submits that the disclosure of BAUM et al. does not remedy the deficiencies noted above, with respect to

MILLER et al. Therefore, Applicant submits that claim 14 is patentable over the cited combination of MILLER et al. and BAUM et al. for at least the reasons given above with respect to claim 12.

Claim 10 is rejected under 35 U.S.C. § 103(a) as being unpatentable over MILLER et al. in view of KATSEFF et al. Applicants respectfully traverse.

Claim 10 depends from claim 1. Applicant respectfully submits that the disclosure of KATSEFF et al. does not remedy the deficiencies noted above, with respect to MILLER et al. Therefore, Applicant submits that claim 10 is patentable over the cited combination of MILLER et al. and KATSEFF et al. for at least the reasons given above with respect to claim 1.

In view of the foregoing amendments and remarks, Applicants respectfully request the Examiner's reconsideration of this application, and the timely allowance of the pending claims.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 13-2491 and please credit any excess fees to such deposit account.

Respectfully submitted,

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